

2021-0361, 2019-4395, 2019-2117, 2018-5560
2024-11-07

Last Approved Label Sub. No. 2021-2210

GROUP	28	INSECTICIDE
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HARVANTA 50SL INSECTICIDE

SUSPENSION

COMMERCIAL

READ THE LABEL BEFORE USING

ACTIVE INGREDIENT: Cyclaniliprole 50 g/L

REGISTRATION NO: 32889 PEST CONTROL PRODUCTS ACT

Net Contents: 500 ml – 200 L

**ISK Biosciences Corporation
7470 Auburn Road
Suite A
Concord, Ohio 44077 U.S.A.
1-877-706-4640**

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

DO NOT take internally. Harmful if swallowed.

Avoid contact with eyes.

Avoid prolonged contact with skin. Wash exposed areas of skin thoroughly with soap and warm water after handling or using. Remove contaminated clothing and wash before re-use.

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab or cockpit.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Apply only to agricultural crops when the potential for drift to areas of human habitation and human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

FIRST AID

IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

In Case of Emergency: Call 1-888-484-7546.

TOXICOLOGICAL INFORMATION

Treat symptomatically.

ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.

Toxic to certain beneficial arthropods (may include predatory and parasitic insects, spiders, and mites). Minimize spray drift to reduce harmful effects on beneficial arthropods in habitats next to the application site such as hedgerows and woodland.

TOXIC to bees. Bees may be exposed through direct spray, spray drift, and residues on leaves, pollen and nectar in flowering crops and weeds. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. Avoid applications when bees are foraging in the treatment area in ground cover containing blooming weeds. To further minimize exposure to pollinators, refer to the complete guidance “Protecting Pollinators during Pesticide Spraying – Best Management Practices” on the Health Canada website (www.healthcanada.gc.ca/pollinators). Follow crop specific directions for application timing.

For applications on crops with high pollinator exposure (pome fruits, stone fruits and ornamentals excluding coniferous evergreens and ornamental grasses):
DO NOT APPLY DURING THE CROP BLOOMING PERIOD..

For applications on cucurbits:

Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to the EVENING AFTER FLOWER PETALS HAVE CLOSED.

For applications on all other crops:

Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.

Cyclaniliprole is persistent and may carry over. It is recommended that this product not be used in areas treated with any products containing cyclaniliprole during the previous season.

This product demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of HARVANTA 50SL INSECTICIDE in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

Greenhouse use: Toxic to bees and other beneficial arthropods (which may include predatory and parasitic insects, spiders, and mites). May harm bees and other beneficial arthropods, including those used in greenhouse production. Avoid application when bees or other beneficial arthropods are in the treatment area

DO NOT allow releases, effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

STORAGE

Keep product in original container during storage. Store product in cool, dry, well ventilated place. To prevent contamination, store this product away from food or feed.

DISPOSAL

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

RESISTANCE MANAGEMENT

For resistance management, please note that HARVANTA 50SL INSECTICIDE contains a Group 28 insecticide. Any insect population may contain individuals naturally resistant to HARVANTA 50SL INSECTICIDE and other Group 28 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, follow these instructions unless directed otherwise in the specific directions for use sections of this label:

- Where possible, rotate the use of HARVANTA50SL INSECTICIDE or other Group 28 insecticides with different groups that control the same pests in a field.
- Avoid using HARVANTA50SL INSECTICIDE or other Group 28 insecticide more than 2 times per pest generation to the same insect species on a crop.
- Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period to the same insect species on a crop.
- Application to the next generation of insect pest(s) should be with a product with a different mode of action (non-Group 28 insecticide).
- Use tank mixtures with insecticides from a different group that is effective on the target pest when such use is permitted.
- Insecticide use should be based on an IPM program that includes scouting and record keeping, and considers cultural, biological and other chemical control practices.

- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact ISK Biosciences Corporation at 1-877-706-4640.

INTEGRATED PEST MANAGEMENT

HARVANTA 50SL INSECTICIDE is an insecticide for control of labeled insect pests. Monitor beneficial and pest insect populations, and make treatment decisions based on locally determined economic thresholds. HARVANTA 50SL INSECTICIDE is recommended for use as part of an Integrated Pest Management (IPM) program, which may include the use of pest-resistant crop varieties, cultural practices, crop rotation, biological control agents, pest scouting and pest forecasting systems aimed at preventing economic pest damage. Consult your local agricultural authorities for additional IPM strategies established in your area.

USE RESTRICTIONS

DO NOT use in greenhouses unless otherwise stated on the label.

CROP ROTATION RESTRICTIONS

Crops on this label may be planted immediately after the last treatment. Do not plant other crops not registered for this product within 30 days after the last application.

DIRECTIONS FOR USE

Apply when pest populations have reached economic thresholds. Thorough, uniform coverage is essential for best results.

Dosage rates on this label indicate litres of HARVANTA 50SL INSECTICIDE per hectare, unless otherwise stated. Use the highest rate specified for high pest pressures.

HARVANTA 50SL INSECTICIDE may be applied by chemigation..

DO NOT apply using handheld mistblower/airblast or handheld fogging equipment.

To protect pollinators, follow the instructions regarding bees in the ENVIRONMENTAL PRECAUTIONS section.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Mixing and Loading Instructions

NOTE: Slowly invert container several times to assure uniform mixture of formulation before adding this product to the spray tank.

The required amount of HARVANTA 50SL INSECTICIDE should be added slowly into the spray tank during filling. With concentrate sprays, pre-mix the required amount of HARVANTA 50SL INSECTICIDE in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations. DO NOT allow spray mixture to stand overnight or for prolonged periods. Prepare only the amount of spray required for immediate use. Spraying equipment should be thoroughly cleaned immediately after the application.

Spray Volume

Apply HARVANTA 50SL INSECTICIDE in sufficient water to obtain adequate coverage of the foliage. Volume to be used will vary with crop and amount of plant growth. For ground application, spray volume will usually range from 200 to 1000 litres per hectare unless otherwise specified. For aerial applications, apply HARVANTA 50SL INSECTICIDE in a minimum of 50 litres per hectare.

Tank Mix Compatibility

When tank-mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels. It is the applicator's responsibility to ensure that the companion product is approved for use on the intended crop. Any combination should be tested for crop safety on a small portion of the crop to ensure that a phytotoxic response will not occur. In addition, the physical compatibility of HARVANTA 50SL INSECTICIDE with tank mix partners must be evaluated before use. Conduct a jar test with intended tank-mix pesticides prior to preparation of large volumes. Use the following procedure: 1) Pour the recommended proportions of the products into a suitable container of water, 2) Mix thoroughly and 3) Allow to stand for 5 minutes. If the combination remains mixed or can be re-mixed readily, it is considered physically compatible. Any physical incompatibility in the jar test indicates that HARVANTA 50SL INSECTICIDE should not be used in the tank-mix.

Do not use liquid fertilizer as a carrier for HARVANTA 50SL INSECTICIDE.

Spray Equipment Clean Out

After spraying HARVANTA 50SL INSECTICIDE and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned.

GROUND APPLICATION

Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) fine classification. Boom height must be 60 cm or less above the crop or ground.

All ground application equipment must be properly maintained and calibrated using appropriate carriers. Use the largest droplet size consistent with good pest control. Utilize a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets. Do not exceed 205 kPa (30 psi) spray pressure unless otherwise required by the manufacturer of drift reducing

nozzles. Sprayers should be adjusted to position spray tips a minimum of 46 cm (18 inches) above the crop. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in higher application rates.

Airblast application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. **DO NOT** apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

CHEMIGATION APPLICATION

HARVANTA 50SL Insecticide may be applied through a solid set overhead sprinkler irrigation system that will apply water uniformly and within the confines of a closed perimeter of dykes. Do not apply this product through any other type of irrigation system. Sprinkler systems that deliver a low coefficient of uniformity such as certain water drive units are not recommended. Non-uniform distribution of treated water may reduce effectiveness or result in illegal pesticide residues on the crop. Proper calibration of the chemigation system is essential to deliver the desired rate per hectare in a uniform manner and to minimize wash-off time. If you have questions about calibration, contact the equipment manufacturer or other expert.

Equipment Requirements:

- The system must contain an air gap, or approved backflow prevention device, or approved functional check valve, vacuum relief valve (including inspection port), and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow unless the water is from a man-made self-contained source on private land.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve or one-way valve to prevent the flow of fluid back toward the injection pump. A secondary containment system around the injection port area must be in place.
- The pesticide injection pipeline must also contain a functional, normally closed, valve located on the intake side of the injection system to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection when the water pressure drops or water flow stops. Alternatively, in the absence of such an automatic system, the injection procedure must be continuously monitored by an operator who is able to manually shut off pesticide injection under the same circumstances.
- Systems must use a metering device, such as a positive displacement injection pump (or flow meter on eductor) effectively designed and compatible with pesticides and capable of being fitted with a system interlock.
- The tank holding the insecticide mixture should be free of rust, fertilizer, sediment, and foreign material, and equipped with an in-line strainer situated between the tank and the injection point.
- To ensure uniform mixing of the insecticide in the water line, inject the mixture in the center of the pipe diameter or just ahead of an elbow or tee in the irrigation line so the turbulence created at those points will assist in mixing. The injection point must be

located after all back-flow prevention devices on the water line unless the water is from a man-made self-contained source on private land.

Precautions:

- DO NOT connect an irrigation system used for pesticide application to a public water system unless the required safety devices for public water systems are in place. Specific local regulations may apply and must be followed.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall operate the system and shall shut the system down to make necessary adjustments should the need arise.
- DO NOT apply when wind speed causes non-uniform distribution and/or favors drift beyond the area intended for treatment.
- Do not apply by chemigation if the area to be treated is within 100 metres of a residential area or park.
- DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the prescribed American Society of Agricultural Engineers (ASAE) fine classification. Applications must be conducted WITHOUT the use of end guns.
- DO NOT allow spray pattern to exceed the enclosed bed area.

AERIAL APPLICATION

Aerial application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply when wind speed is greater than 16 km/h at flying height at the site of application. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) fine classification. Reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotor-span.

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate specified for aerial application on this label. Where no instructions for aerial application appear for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Use Precautions

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under the conditions of good practice specific to aerial application as outlined in the *National Aerial Pesticide Application Manual*, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Operator Precautions

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

Product Specific Precautions

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 877-706-4640 or obtain technical advice from the distributor or your provincial agricultural representative. Application of the specific product must meet and/or conform to the following:

Volume: Apply the specified rate in a minimum spray volume of 50 litres per hectare.

Buffer zones:

Spot treatments using hand-held equipment **DO NOT** require a buffer zone.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop	Buffer Zones (metres) Required for the Protection of:			
		Freshwater Habitat of Depths:		Estuarine/Marine Habitat of Depths:	
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m
Field sprayer	Leafy Vegetables, Brassica Head and Stem Vegetables, Fruiting Vegetables, Cucurbit Vegetables, Tuberous and Corm Vegetables	1	0	1	0

	Berries and Small Fruits, including Grapes, Cranberry, Outdoor ornamentals		1	1	1	1
Chemigation	Cranberry		1	1	1	1
Airblast	Pome Fruit, Tree Nuts, Stone Fruit, Berries and Small Fruits, Grapes, Cranberry, Outdoor ornamentals	Early growth stage	3	1	2	1
		Late growth stage	2	1	1	1
Aerial	Leafy Vegetables, Brassica Head and Stem Vegetables, Fruiting Vegetables, Cucurbit Vegetables, Tuberous and Corm Vegetables	Fixed wing or Rotary wing	1	0	0	0

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

DIRECTIONS FOR USE			
Crops	Insects	Rate	Instructions
Pome Fruits (Crop Group 11-09)*	Codling moth, Obliquebanded leafroller, Threelined leafroller, Oriental fruit moth, Western flower thrips (suppression), Apple maggot (suppression), Plum curculio (suppression)	1.2 to 1.6 L product/ha 60 to 80 g a.i. /ha	<p>Application Instructions: Thorough coverage is essential to achieve best results. Select a spray volume appropriate for the size of trees and density of foliage. Spray volumes of 935-1,870 litres water per hectare are recommended. Use the higher rate for high pest pressure. Apply by ground application equipment only. Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period.</p> <p>Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide more than 2 times within a single generation of insect pest(s) on a crop.</p> <p>Codling Moth Make first application just prior to or at the beginning of egg hatch. Monitor populations and reapply in 14 days if required. Use pheromone trap catches and local degree day based spray timing advisories to determine the development of each codling moth generation. For effective resistance management make applications of HARVANTA 50SL INSECTICIDE in one codling moth generation before rotating to an insecticide with a different mode of action (Non-Group 28) in the next generation.</p> <p>Obliquebanded Leafroller and Threelined Leafroller Apply when overwintering larvae become active. Can also be used later in the growing season at or just prior to egg hatch.</p> <p>Restrictions: Make no more than 3 applications per crop per year. Minimal interval between treatments is 14 days. Do not apply more than 4.8 litres HARVANTA 50SL INSECTICIDE per hectare per year (240 g a.i./ha/year). Pre-Harvest Interval (PHI) – 7 days. Do not apply using aerial application equipment.</p> <p>TOXIC to bees. DO NOT apply during the crop blooming period.</p>

* apple; azarole; crabapple; mayhaw; medlar; pear; pear, Asian; quince; quince, Chinese; quince, Japanese; tejocote; cultivars, varieties, and/or hybrids of these.

DIRECTIONS FOR USE

Crop	Crop	Crop	Crop
Tree Nuts (Crop Group 14-11)*	Peach twig borer, Walnut husk fly, Obliquebanded leafroller, Threelined leafroller, Oriental fruit moth	1.2 to 1.6 L product/ha 60 to 80 g a.i. /ha	Application Instructions: Thorough coverage is essential to achieve best results. Select a spray volume appropriate for the size of trees and density of foliage. Spray volumes of 935-1,870 litres water per hectare are recommended. Use the higher rate for high pest pressure. Apply by ground application equipment only. Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period. Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide more than 2 times within a single generation of insect pest(s) on a crop. Codling Moth Make first application just prior to or at the beginning of egg hatch. Monitor population and reapply in 14 days if required. Use pheromone trap catches and local degree day based spray timing advisories to determine the development of each codling moth generation. For effective resistance management make applications of HARVANTA 50SL INSECTICIDE in one codling moth generation before rotating to an insecticide with a different mode of action (Non-Group 28) in the next generation. Obliquebanded Leafroller and Threelined Leafroller Apply when overwintering larvae become active. Can also be used later in the growing season at or just prior to egg hatch. Peach Twig Borer Use higher rate for heavy infestations and for application to overwintering generations. Applications to summer generations should be timed during peak egg laying periods. Restrictions: Make no more than 3 applications per crop per year. Minimal interval between treatments is 14 days. Do not apply more than 4.8 litres HARVANTA 50SL INSECTICIDE per hectare per year (240 g a.i./ha/year). Pre-Harvest Interval (PHI) – 30 days. Do not apply using aerial application equipment. Toxic to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.
	Codling moth	1.6 L product/ha 80 g a.i./ha	
* almond; beechnut; bur oak; butternut; chestnut; chinquapin; ginkgo; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; monkey puzzle nut; pecan; pine nut; walnut, black; walnut, English; yellowhorn; cultivars, varieties and/or hybrids of these.			

DIRECTIONS FOR USE			
Crop	Insects	Rate	Instructions
Stone Fruits (Crop Group 12-09)*	Obliquebanded leafroller, Threelined leafroller, Omnivorous leafroller (suppression), Oriental fruit moth, Peach twig borer, Walnut husk fly, Western cherry fruit fly, Spotted wing drosophila, Western flower thrips (suppression), Plum curculio (suppression)	1.2 to 1.6 L product/ha 60 to 80 g a.i. /ha	<p>Application Instructions: Thorough coverage is essential to achieve best results. Select a spray volume appropriate for the size of trees and density of foliage. Spray volumes of 935-1,870 litres water per hectare are recommended. Use the higher rate for high pest pressure. Apply by ground application equipment only.</p> <p>Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period.</p> <p>Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide more than 2 times within a single generation of insect pest(s) on a crop.</p> <p>Obliquebanded Leafroller and Threelined Leafroller Apply when overwintering larvae become active. Can also be used later in the growing season at or just prior to egg hatch.</p> <p>Peach Twig Borer Use higher rate for heavy infestations and for application to dormant generations. Applications to summer generations should be timed during peak egg laying periods.</p> <p>Western Flower Thrips Apply at the first sign of active feeding.</p> <p>Western Cherry Fruit Fly and Spotted Wing Drosophila Use degree day models to determine application timing. Repeat applications at 7 day intervals depending on weather conditions.</p> <p>Restrictions: Make no more than 3 applications per crop per year. Minimal interval between treatments is 7 days. Do not apply more than 4.8 litres HARVANTA 50SL INSECTICIDE per hectare per year (240 g a.i./ha/year). Pre-Harvest Interval (PHI) – 7 days. Do not apply using aerial application equipment.</p> <p>TOXIC to bees. DO NOT apply during the crop blooming period.</p>
<p>* apricot; apricot, Japanese; cherry, black; cherry, Nanking; cherry, sweet; cherry, tart; jujube, Chinese; nectarine; peach; plum; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plum, prune; plumcot; sloe; cultivars, varieties, and/or hybrids of these.</p>			

DIRECTIONS FOR USE			
Crop	Insects	Rate	Instructions
Leafy Vegetables (Crop Group 4-13)*, Brassica Head and Stem Vegetables (Crop Group 5-13)**	Beet armyworm, Bertha armyworm, Cabbage looper, Diamondback moth	0.8 to 1.2 L product/ha 40 to 60 g a.i. /ha	<p>Application Instructions: Thorough coverage is essential to achieve best results. Apply by either ground or aerial application equipment. Spray volumes of 200-1000 litres of water per hectare are recommended for ground application. A minimum spray volume of 50 litres of water per hectare is recommended for aerial application (Crop Group 4-13, Leafy Vegetables only). Use the higher rate for high pest pressure.</p> <p>Do not make a foliar application of HARVANTA 50SL INSECTICIDE following in-furrow, soil, transplant, or seed treatment applications with any Group 28 insecticide.</p> <p>Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period.</p> <p>Diamondback Moth For resistance management, do not apply HARVANTA 50SL INSECTICIDE to successive generations of diamondback moth or more than twice within a single generation or 30 day period. Applications to the following generation of diamondback moth should be with a non-Group 28 insecticide.</p> <p>Restrictions: Make no more than 3 applications per crop per year. Minimal interval between treatments is 7 days. Do not apply more than 3.6 litres HARVANTA 50SL INSECTICIDE per hectare per year (180 g a.i./ha/year). Pre-Harvest Interval (PHI) – 1 day.</p>
	Leafminers (<i>Liriomyza</i> species), Western flower thrips (suppression), Whiteflies (suppression) Redheaded flea beetle (Crop Group 4-13 Leafy Vegetables only)	1.2 L product/ha 60 g a.i./ha	

* amaranth, Chinese; amaranth, leafy; arugula; aster, Indian; blackjack; broccoli raab; broccoli, Chinese; cabbage, Abyssinian; cabbage, seakale; cat's whiskers; cham-chwi; cham-na-mul; chervil, fresh leaves; Chinese cabbage, bok choy; chipilin; chrysanthemum, garland; cilantro, fresh leaves; collards; corn salad; cosmos; cress, garden; cress, upland; dandelion; dang-gwi; dillweed, fresh leaves; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; Good King Henry; Hanover salad; huauzontle; jute leaves; kale; lettuce, bitter; lettuce, head; lettuce, leaf (romaine); maca; mizuna; mustard greens; orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane, garden; purslane, winter; radicchio (red chicory); radish, leaves; rape greens; rocket, wild; shepherd's purse; spinach; spinach, Malabar; spinach, New Zealand; spinach, tree (giant lambsquarter); Swiss chard; tanier spinach; turnip greens; violet, Chinese; watercress; cultivars, varieties and/or hybrids of these.

** broccoli; Brussels sprouts; cabbage; cabbage, Chinese (napa); cauliflower; cultivars, varieties and/or hybrids of these.

DIRECTIONS FOR USE

Crop	Insects	Rate	Instructions
Fruiting Vegetables (Crop Group 8-09)*	Colorado Potato Beetle	0.4 to 0.8 L product/ha 20 to 40 g a.i./ha	<p>Application Instructions: Thorough coverage is essential to achieve best results. Apply by either ground or aerial application equipment. Use the higher rate for high pest pressure.</p> <p>Do not make a foliar application of HARVANTA 50SL INSECTICIDE following in-furrow, soil, transplant, or seed treatment applications with any Group 28 insecticide.</p> <p>Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period.</p> <p>For Colorado Potato Beetle: Use the higher application rate under heavy pest pressure and/or when larger larvae or adults are present.</p> <p>Restrictions: Make no more than 3 applications per crop per year. Minimal interval between treatments is 7 days. Do not apply more than 3.6 litres HARVANTA 50SL INSECTICIDE per hectare per year (180 g a.i./ha/year). Pre-Harvest Interval (PHI) – 1 day. Toxic to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.</p>
	Beet armyworm, Bertha armyworm, Cabbage looper,	0.8 to 1.2 L product/ha 40 to 60 g a.i./ha	
	Fall armyworm		
	Leafminers (<i>Liriomyza</i> species), Western flower thrips (suppression), Whiteflies (suppression)	1.2 L product/ha	

* African eggplant; bell pepper; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; okra; pea eggplant; pepino; nonbell pepper; scarlet eggplant; sunberry; tomatillo; tomato; cultivars, varieties, and/or hybrids of these.

DIRECTIONS FOR USE			
Crop	Insects	Rate	Instructions
Cucurbits Vegetables (Crop Group 9)*	Beet armyworm, Bertha armyworm, Cabbage looper	0.8 to 1.2 L product/ha 40 to 60 g a.i. /ha	Application Instructions: Thorough coverage is essential to achieve best results. Apply by either ground or aerial application equipment. Use the higher rate for high pest pressure. Do not make a foliar application of HARVANTA 50SL INSECTICIDE following in-furrow, soil, transplant, or seed treatment applications with any Group 28 insecticide. Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period. Restrictions: Make no more than 3 applications per crop per year. Minimal interval between treatments is 7 days. Do not apply more than 3.6 litres HARVANTA 50SL INSECTICIDE per hectare per year (180 g a.i./ha/year). Pre-Harvest Interval (PHI) – 1 day. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to the EVENING AFTER FLOWER PETALS HAVE CLOSED.
	Leafminers (<i>Liriomyza</i> species), Western flower thrips (suppression), Onion thrips (suppression), Whiteflies (suppression), Cucumber beetles (suppression)	1.2 L product/ha 60 g a.i./ha	
* Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (e.g., hyotan, cucuzza, hechima, Chinese okra); <i>Momordica spp</i> (e.g., balsam apple, balsam pear, bitter melon, Chinese cucumber); muskmelon, hybrids and/or cultivars of <i>Cucumis melo</i> (e.g., true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon); pumpkin; squash, summer (e.g., crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); squash, winter (e.g., butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon (includes hybrids and/or varieties of <i>Citrullus lanatus</i>)			

DIRECTIONS FOR USE			
Crop	Insects	Rate	Instructions
Grapes	Grape berry moth, Spotted wing drosophila, Omnivorous leafroller (suppression), Western flower thrips (suppression)	1.2 to 1.6 L product/ha 60 to 80 g a.i. /ha	<p>Application Instructions: For use on all types of grapes (wine, table, raisin, and juice). Thorough coverage is essential to achieve best results. Select a spray volume appropriate for the density of foliage. Spray volumes of 935-1,400 litres water per hectare are recommended. Use the higher rate for high pest pressure. Apply by ground application equipment only.</p> <p>Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period.</p> <p>Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide more than 2 times within a single generation of insect pest(s) on a crop.</p>
	Redheaded flea beetle	1.2 L product/ha 60 g a.i./ha	<p>Grape berry moth: Apply after moth flight begins and prior to egg hatch. Monitor populations and reapply if required.</p> <p>Western Flower Thrips: Apply if populations exceed damage threshold.</p> <p>Spotted Wing Drosophila: Use degree day models to determine application timing. Repeat applications at 7 day intervals if required.</p> <p>Redheaded flea beetle: Apply preventatively or at first sign of pest presence.</p> <p>Restrictions: Make no more than 3 applications per crop per year. Minimal interval between treatments is 7 days. Do not apply more than 4.8 litres HARVANTA 50SL INSECTICIDE per hectare per year (240 g a.i./ha/year). Pre-Harvest Interval (PHI) – 7 days. Do not apply using aerial application equipment.</p> <p>Toxic to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.</p>

DIRECTIONS FOR USE			
Crop	Insects	Rate	Instructions
Cranberry	Cranberry Tipworm (<i>Dasineura oxycoccana</i>) suppression	1.6 L product/ha 80 g a.i. /ha	<p>Application Instructions - boom and ground spray Begin applications when treatment thresholds have been reached. Thorough coverage is essential to achieve best results. Apply in sufficient water volume to obtain adequate coverage of foliage (200-1000 L/ha depending on equipment).</p>
	Blackheaded fireworm	1.6 L product/ha 80 g a.i. /ha	<p>Application Instructions - chemigation (solid set sprinklers) Begin applications when treatment thresholds have been reached. Thorough coverage is essential to achieve best results. Apply in a minimum spray volume of 3000 L/ha.</p> <p>Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period.</p> <p>Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide more than 2 times within a single generation of insect pest(s) on a crop.</p> <p>Restrictions: Make no more than 3 applications per crop per year. Minimal interval between treatments is 5 days. Do not apply more than 4.8 litres HARVANTA 50SL INSECTICIDE per hectare per year (240 g a.i./ha/year). Pre-Harvest Interval (PHI) – 1 day. Do not apply by air.</p> <p>Toxic to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, do not apply during the crop blooming period.</p>

DIRECTIONS FOR USE

Crop	Insects	Rate	Instructions
Berries and Small Fruits	Spotted wing drosophila, Omnivorous leafroller (suppression), Western flower thrips (suppression)	1.2 to 1.6 L product/ha 60 to 80 g a.i. /ha	Application Instructions: Thorough coverage is essential to achieve best results. Select a spray volume appropriate for the density of foliage. Spray volumes of 200-1,400 litres water per hectare are recommended. Use the higher rate for high pest pressure. Apply by ground application equipment only.
Caneberry Subgroup 13-07A‡	Redheaded flea beetle	1.2 L product/ha 60 g a.i./ha	Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period. Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide more than 2 times within a single generation of insect pest(s) on a crop. Western Flower Thrips: Apply if populations exceed damage threshold. Spotted Wing Drosophila: Use degree day models to determine application timing. Repeat applications at 7 day intervals if required. Redheaded flea beetle: Apply preventatively or at first sign of pest presence. Restrictions: Make no more than 3 applications per crop per year. Minimal interval between treatments is 5 days. Do not apply more than 4.8 litres HARVANTA 50SL INSECTICIDE per hectare per year (240 g a.i./ha/year). Pre-Harvest Interval (PHI) – 1 days. Do not apply using aerial application equipment. Toxic to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.
Bushberry Subgroup 13-07B‡‡			
Small fruit vine climbing subgroup, except grape, subgroup 13-07E†			
Low growing berry subgroup 13-07G††			
‡ Caneberry Subgroup 13-07A: Blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these); raspberry, black and red; wild raspberry; cultivars, varieties, and/or hybrids of these. ‡‡ Bushberry Subgroup 13-07B: Aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; Chilean guava; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these. † Small Fruit Vine Climbing Subgroup, Except Grape, 13-07E: Amur river grape; gooseberry; kiwifruit, fuzzy; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these. †† Low Growing Berry Subgroup 13-07G: Bearberry; bilberry; blueberry, lowbush; cloudberry; cranberry; lingonberry; muntries; partridgeberry; strawberry; cultivars, varieties, and/or hybrids of these.			

DIRECTIONS FOR USE			
Crop	Insects	Rate	Instructions
Tuberous and Corm Vegetables (Crop subgroup 1C)*	Colorado Potato Beetle	0.4 to 0.8 L product/ha 20 to 40 g a.i. /ha	Application Instructions: Thorough coverage is essential to achieve best results. Apply by either ground or aerial application equipment. Use the higher rate for high pest pressure. Do not make a foliar application of HARVANTA 50SL INSECTICIDE following in-furrow, soil, transplant, or seed treatment applications with any Group 28 insecticide. Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period. For Colorado Potato Beetle: Use the higher application rate under heavy pest pressure and/or when larger larvae or adults are present. Restrictions: Make no more than 3 applications per crop per year. Minimal interval between treatments is 5 days. Do not apply more than 3.6 litres HARVANTA 50SL INSECTICIDE per hectare per year (180 g a.i./ha/year). Pre-Harvest Interval (PHI) – 7 days.
	Cabbage looper, Beet armyworm, Bertha armyworm, Fall armyworm Potato psyllid (suppression)	0.8 to 1.2 L product/ha 40 to 60 g a.i. /ha	
	Leafminers (<i>Liriomyza</i> species), Western flower thrips (suppression), Onion thrips (suppression), Whiteflies (suppression)	1.2 L 60 g a.i. /ha	
* Arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; chufa; dasheen (taro); potato; sweet potato; yam, true			

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than ISK Biosciences Corporation under the User Requested Minor Use Label Expansion program. For these uses, ISK Biosciences Corporation has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

DIRECTIONS FOR USE			
Crop	Insects	Rate	Instructions
Outdoor Ornamentals* (excluding conifers)	Redheaded Flea Beetle (<i>Systema frontalis</i>) (suppression)	0.8 L product/ha 40 g a.i./ha	<p>Application Instructions: Thorough coverage is essential to achieve best results. Apply by ground application equipment only. Spray volumes of 935-1,400 litres water per hectare are recommended. The maximum volume should be used when plant foliage is dense. Apply at first sign of pest presence.</p> <p>Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period.</p> <p>Restrictions: Make no more than 6 applications of HARVANTA 50SL per year. Minimal interval between treatments is 5 days. Do not apply more than 4.8 litres HARVANTA 50SL INSECTICIDE per hectare per year (240 g a.i./ha/year).</p> <p>Toxic to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging.</p>
<p>CAUTION: Due to the large number of species, varieties and cultivars of ornamental plants, it is impossible to test every plant species for tolerance to HARVANTA 50SL INSECTICIDE. The user should test a small number of plants for sensitivity before considering application to the entire crop. Do not apply to the ornamental plants if any negative or adverse crop response is observed, or if a test for sensitivity was not conducted.</p>			
Crop	Insects	Rate	Instructions
Greenhouse Peppers	Pepper Weevil (<i>Anthonomus eugenii</i>) (suppression)	1.2 to 2.0 L product/ha 60 to 100 g a.i./ha	<p>Application Instructions: Thorough coverage is essential to achieve best results. Apply at first sign of pest pressure. Apply sufficient volume at first sign of pest pressure to ensure good coverage, up to 1000 L/ha. The maximum volume should be used when plant foliage is dense. Use the higher rate for high pest pressure. Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period.</p> <p>HARVANTA 50SL INSECTICIDE be tank-mixed with a non-ionic surfactant (such as Agral 90).</p>

Crop	Insects	Rate	Instructions
Greenhouse Tomato	Cabbage looper, beet armyworm, bertha armyworm, fall armyworm	0.8 to 1.2 L product/ha 40 to 60 g a.i./ha	Application Instructions: Thorough coverage is essential to achieve best results. Apply at first sign of pest pressure. Apply in sufficient volume to ensure good coverage. When applicable, use the higher rate for high pest pressure. Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period. Restrictions: Make no more than 4 applications per crop cycle. Minimal interval between treatments is 5 days. Pre-Harvest Interval (PHI) – 1 day.
	Western Flower Thrips (suppression), Whiteflies (suppression)	1.2 L 60 g a.i./ha	
Crop	Insects	Rate	Instructions
Greenhouse ornamentals* (including cut flowers, perennials and annuals)	Western flower thrips (suppression), Onion thrips (suppression)	1.2 to 1.6 L product/ha 60 to 80 g a.i./ha	Application Instructions: Apply when pests are first observed. Thorough coverage is essential to achieve best results. Apply as a foliar broadcast in sufficient volume to ensure good coverage up to 1000 L/ha. The maximum volume should be used when plant foliage is dense. Use the higher rate for high pest pressure. Avoid applying HARVANTA 50SL INSECTICIDE or other Group 28 insecticide consecutively more than 2 times within a 30 day period. Restrictions: Make no more than 5 applications per crop cycle. Minimal interval between treatments is 7 days. Do not apply more than 6 liters HARVANTA 50SL Insecticide per hectare per crop cycle (300 g a.i./ha/crop cycle)

*Ornamental species and varieties may vary in their tolerance to pest control products. First use of HARVANTA 50SL INSECTICIDE should be limited to a small area of each variety to test for possible phytotoxicity before making large scale applications.

Greenhouse ornamentals that may be moved outdoors: Do NOT apply during the blooming period if crops are to be moved outdoors while sprayed blooms remain on plant. Restriction does not apply to coniferous evergreens and ornamental grasses.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.